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ANNEX 3

1/2

PN - JP4311384 A 19921104
 PD - 1992-11-04
 PR - JP19910079277 19910411
 OPD - 1991-04-11
 TI - METHOD FOR PLANT TISSUE CULTURE AND GROWTH
 PROMOTER FOR PLANT TISSUE CULTURE
 IN - MASAYAMA YUKIHIRO; SASAKI YOSHINORI
 PA - CALPIS FOOD IND CO LTD
 IC - C12N5/04

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TI - Method for culturing plant tissue - involves adding oligosaccharide growth promoter esp. soybean oligosaccharide(s) to culture medium contg. plant tissue
 PR - JP19910079277 19910411
 PN - JP4311384 A 19921104 DW199251 C12N5/04 006pp
 PA - (CALV) CALPIS SHOKUJIN KOGYO KK
 IC - C12N5/04
 AB - J04311384 Process comprises adding oligosaccharide having growth promotion activity to culture medium. Examples of oligosaccharides as an essential component are e.g., ones where 2-10 (pref. 3-6) of monosaccharides are bonded such as soybean oligosaccharides extracted from soybeans contg. stachyose, raffinose, etc. as a main component, fructo-oligosaccharide, isomalto-oligosaccharide, galacto-oligosaccharide, malto-oligosaccharide, xylo-oligosaccharide, etc. These are used independently or as a mixt.. Soybean oligosaccharide is pref. More specifically selected from soybeans, their extracts, soybean whey, treated soln., and mixt.. Culture medium conditions are pH5-7, temp. 25 deg.C and 2,000-4,000 luxs with a lighting term of about 16 hours/day. The oligosaccharide is added to a culture medium in an amt. of 0.1-10 % w/v. The plant tissues are obtd. from plant bodies such as roots, stems leaves, auxillary buds, etc. esp. callus, secondary adventitious embryo, protocorm, shoot, etc.. Plant growth promotion is determined by, e.g., culturing for a certain period, the culture medium and comparing total weight of culture tissue, number of shoots, number of root, etc. of the culture medium where the oligosaccharide is added, with the one untreated.
 - USE/ADVANTAGE - Provides a plant growth promoter for culturing plant tissues. (Dwg.0/0)

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OPD - 1991-04-11

AN - 1992-418097 [51]

CPAJ/JPO

ANNEX 3

(12)

PN - JP4311384 A 19921104

PD - 1992-11-04

AP - JP19910079277 19910411

IN - MASAYAMA YUKIHIRO; others:01

PA - CALPIS FOOD IND CO LTD:THE

TI - METHOD FOR PLANT TISSUE CULTURE AND GROWTH
PROMOTER FOR PLANT TISSUE CULTUREAB - PURPOSE: To provide high growth promoting action and efficiently
culture a plant tissue on an industrial level without relying on plant
seeds by adding a growth promoter containing an oligosaccharide
having the growth promoting action for culturing the plant tissue into
a culture medium in culturing the plant tissue.- CONSTITUTION: Soybean protein whey is diluted with water and
heat-treated and a solution of calcium chloride is then added
thereto. The pH of the resultant solution is subsequently regulated
to 4.8-5.0 and the regulated solution is allowed to stand for 16hr to
collect the clear supernatant solution. The obtained clear solution is
treated with an ultrafiltration membrane and the treated solution is
electrodialyzed with an ion exchange membrane, further passed
through an ion exchange resin column and then concentrated to
prepare an oligosaccharide syrup. A growth promoter containing
the oligosaccharide having growth promoting action on a plant
tissue for culturing the plant tissue is provided therefrom and the
resultant growth promoter is added into a culture medium to carry
out culturing of the plant tissue (e.g. a secondary adventitious bud
of *Quercus acutissima* Carr.). Thereby, the plant tissue is efficiently
cultured on an industrial level.

I - C12N5/04

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